

Name: _____

Date: _____

FOIL when $A \neq 1$ solution (version 20)

FOIL the expressions shown below:

1. $(-2x - 4)(8x + 4)$

$$\begin{aligned} &(-2)(8)x^2 + (-2)(4)x + (-4)(8)x + (-4)(4) \\ &(-16)x^2 + (-8)x + (-32)x + (-16) \\ &-16x^2 - 40x - 16 \end{aligned}$$

2. $(7x + 6)(8x + 7)$

$$\begin{aligned} &(7)(8)x^2 + (7)(7)x + (6)(8)x + (6)(7) \\ &(56)x^2 + (49)x + (48)x + (42) \\ &56x^2 + 97x + 42 \end{aligned}$$

3. $(2x + 6)(7x - 2)$

$$\begin{aligned} &(2)(7)x^2 + (2)(-2)x + (6)(7)x + (6)(-2) \\ &(14)x^2 + (-4)x + (42)x + (-12) \\ &14x^2 + 38x - 12 \end{aligned}$$

4. $(2x - 5)(-9x - 4)$

$$\begin{aligned} &(2)(-9)x^2 + (2)(-4)x + (-5)(-9)x + (-5)(-4) \\ &(-18)x^2 + (-8)x + (45)x + (20) \\ &-18x^2 + 37x + 20 \end{aligned}$$

5. $(2x - 8)(9x + 6)$

$$\begin{aligned} &(2)(9)x^2 + (2)(6)x + (-8)(9)x + (-8)(6) \\ &(18)x^2 + (12)x + (-72)x + (-48) \\ &18x^2 - 60x - 48 \end{aligned}$$

FOIL the expressions shown below:

6. $(-7x + 9)(-2x + 6)$

$$\begin{aligned} &(-7)(-2)x^2 + (-7)(6)x + (9)(-2)x + (9)(6) \\ &(14)x^2 + (-42)x + (-18)x + (54) \\ &14x^2 - 60x + 54 \end{aligned}$$

7. $(-5x + 9)(-8x + 3)$

$$\begin{aligned} &(-5)(-8)x^2 + (-5)(3)x + (9)(-8)x + (9)(3) \\ &(40)x^2 + (-15)x + (-72)x + (27) \\ &40x^2 - 87x + 27 \end{aligned}$$

8. $(-9x - 5)(-7x + 2)$

$$\begin{aligned} &(-9)(-7)x^2 + (-9)(2)x + (-5)(-7)x + (-5)(2) \\ &(63)x^2 + (-18)x + (35)x + (-10) \\ &63x^2 + 17x - 10 \end{aligned}$$

9. $(-4x + 6)(-8x + 3)$

$$\begin{aligned} &(-4)(-8)x^2 + (-4)(3)x + (6)(-8)x + (6)(3) \\ &(32)x^2 + (-12)x + (-48)x + (18) \\ &32x^2 - 60x + 18 \end{aligned}$$

10. $(7x - 3)(-9x + 3)$

$$\begin{aligned} &(7)(-9)x^2 + (7)(3)x + (-3)(-9)x + (-3)(3) \\ &(-63)x^2 + (21)x + (27)x + (-9) \\ &-63x^2 + 48x - 9 \end{aligned}$$